

REMARKS

Reconsideration of the above-identified patent application is respectfully requested.

Claims 73-74, 82-84, 89 and 91 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,394,744 to James et al. ("James") in view of U.S. Patent Application Pub. No. 2003/0033799 to Scheying and U.S. Patent No. 6,029,044 to Arsenault et al. ("Arsenault"). Claims 75-81 and 85-88 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over James in view of Scheying and Arsenault, and further in view of U.S. Patent No. 5,251,299 to Masuda et al. ("Masuda").

James is cited as disclosing a system in which an averaging filter is used to convert a sensor signal to a filtered value, and Scheying is cited as disclosing a system that determines a quality value based on the concentration of the reagent solution, the temperature of the reagent solution and the amount of reagent solution in the reservoir. Arsenault is cited as disclosing a system that includes two filters. The Examiner takes the position that, even though the Arsenault filters are bandpass filters and not averaging filters, "the concept of using a second filter to eliminate noise as taught by Arsenault is applicable to systems that utilize other types of filters, including the system taught by James et al." Applicants assert that this line of reasoning is untenable for at least the following reasons.

Arsenault discloses the use of two filters. However, both are clearly conventional band-pass filters and not averaging filters, e.g., see col. 4, lines 36-38 and lines 45-47. Such filters pass only a range of noise frequencies that are then subsequently processed and compared to threshold values. It is important to note that such

bandpass filters, by definition, do not pass all of the content of the input signal at any instant of time. Rather, bandpass filters, by their nature, pass only components of the input signal that are within the specified range of frequencies. In contrast, an averaging filter, by definition, passes all components of the input signal over the predefined period of time during which signal averaging is to occur. Thus, a person of ordinary skill in the art would not look to Arsenault for a teaching of two averaging filters because the filters taught by Arsenault would render the James system inoperable as described. More specifically, because James uses a single averaging filter that operates on all data within a predetermined time period and Arsenault passes only a portion of the data during any such time period, the Arsenault filters simply would not work in the James system as they would produce inaccurate output data that the James system requires. As such, Arsenault is not properly combinable with James, and a proper *prima facie* case of obviousness therefore has not been made. Accordingly, applicants respectfully request withdrawal of the § 103(a) rejection of claims 73-74, 82-84, 89.

Applicants further reassert that the limitations "long run" and "short run" recited in applicants' claim 73 must be properly taken into account in any further examination of the currently pending claims. These terms cannot be simply ignored as the Examiner apparently wishes to do just because these terms are not explicitly defined in applicants' specification. A written description need only clearly define a claim term when that term is specifically intended to have a meaning that is contrary to its ordinary meaning. MPEP §706.03(d). "During examination the USPTO must give claims their broadest reasonable interpretation in light of the specification. This means that the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with

the specification. Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say" MPEP §2111.01(I).

As stated in their submission accompanying the RCE, the phrases "long run" and "short run" are intended by applicants to have their ordinary meaning, and therefore do not require a specific definition thereof in applicants' specification. "In construing claim terms, the general meanings gleaned from reference sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor" MPEP §2111.01(III). In this case, Webster's New World College Dictionary, Fourth Edition, ©2001 defines the phrase "long run" simply as "extending over a long time," and the phrase "short run" simply as "lasting for a short period of time, short-term." These dictionary definitions are consistent with the use of the phrases "long run" and "short run" in applicants' specification, and using the ordinary meanings of these phrases a person of ordinary skill in the art would thus understand a "long run averaging filter" to be a filter that averages data over a long time period and a "short run averaging filter" to be a filter that averages data over a short period of time. Applicants assert that the language of claim 73 must be read consistently with these definitions.

The Examiner now takes the position that the ordinary meaning of the terms "long run averaging" and "short run averaging" is "insufficient because a generic definition is inapplicable to the field of electronics in the context of time." However, the Examiner cites no authority for this position, and applicant asserts that this position is

contrary to the law as set forth in the above-cited sections of the MPEP; namely, that words of a claim must be given their plain meaning unless the plain meaning is inconsistent with the specification, and that ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, must be construed to mean exactly what they say, MPEP §2111.01(I).

The Examiner appears to suggest that the ordinary, plain meaning of the terms "long run averaging" and "short run averaging" in the context of signal filters are not generally understood. While this may be true of lay persons, it is important to note that it is a person of ordinary skill in the art, not laypersons, by which the general understanding of claim terms is measured. In other words, claim terms, absent any explicit definition to the contrary, must be construed in accordance with how they would be interpreted by a person of ordinary skill in the art. Here, a person of ordinary skill in the art is a person having ordinary skill in the art of signal filtering, and applicant asserts that such a person of ordinary skill in the art would understand, consistently with the plain meaning of each term as described above, that a "long run averaging filter" is a filter that averages data over a long time period and a "short run averaging filter" is a filter that averages data over a short period of time. The Examiner has not provided any objective evidence to the contrary, but rather relies on the unsupported conclusion, contrary to well-established principles, that the ordinary, plain meaning of claims terms is somehow insufficient. Accordingly, applicants reassert that when the claim terms "long run averaging filter" and "short run averaging filter" are properly considered, as they are required to be, it is clear that none of the cited references, either alone or in

combination, can render obvious any of applicants' presently pending claims as no such one or combination of references teaches the use of such filters.

Claim 73 is the sole independent claim, and claims 74-91 therefore ultimately depend from claim 73. Claims 74-91 are believed to be patentably distinct from all references of record for the same reasons just given with respect to claim 73.

All claim rejections have been traversed, and claims 73-91 are believed to be in condition for allowance. The Examiner is cordially invited to contact the undersigned by telephone to discuss any unresolved matters.

Respectfully submitted,



Jeffrey A. Michael
Registration No. 37,394
Barnes & Thornburg
11 South Meridian Street
Indianapolis, Indiana 46204-3335
Telephone: (317) 231-7382
Fax: (317) 231-7433